

## Reports and Comments

### Welfare of fish farmed in the EU during transport and at slaughter

This Report, commissioned by the European Commission, summarises the current state of transport and slaughter practices in the aquaculture industry within eleven case-study countries in the European Economic Area (EEA). Comparisons are also made with practices in the non-EEA countries which are major producers of the species considered in the Report (Atlantic salmon, common carp, rainbow trout; European sea bass and gilthead sea bream). The intention of the Report was to survey current standards of welfare for farmed fish undergoing transport and slaughter and to identify unresolved welfare issues. The Report also provides a useful overview of national legislation and voluntary assurance schemes which regulate the slaughter and transport of farmed fish in EEA states, revealing a highly variable picture in terms of the standards applied in various areas of the industry.

Legal standards for fish stunning and transport, even within the European Union (EU) which has extensive standards for terrestrial vertebrates, are not well developed. EU stunning and transport regulations do not mandate or prohibit the use of specific methods as they do for terrestrial livestock, but merely include a duty to ensure these animals are spared avoidable pain, distress or suffering. In the absence of detailed EU legislation permitting or prohibiting specific methods of slaughter, the Report compares current practices in EEA countries with World Organisation for Animal Health (OIE) animal welfare standards for transport and slaughter which do regard specific slaughter and transport practices as acceptable or unacceptable on welfare grounds.

Slaughter methods for farmed fish are diverse, including automated mechanical and electrical stunning, stunning by a manually applied blow to the head, immersion in ice slurry or chilled water as well as chemical methods, such as CO<sub>2</sub> stunning. Many methods may also involve emersion (removal from water) prior to stunning, which may be stressful and is not compliant with OIE standards. The Report provides a summary of these methods as part of a comprehensive literature review.

The Report reveals that for some species there is good compliance with OIE standards for the slaughter of farmed fish in EEA countries, whereas for other species and countries there is still extensive use of methods that do not meet OIE standards, such as the use of CO<sub>2</sub> stunning or chilling in ice water for trout (as opposed to acceptable methods such as electrical or mechanical stunning).

In terms of transport, fish are routinely transported by road and sea and less frequently by air. Fish are transported as juveniles or fry to different sites where they are grown on, and adult fish are sometimes transported to slaughter. Transport can be a considerable source of stress for fish, arising primarily through water quality issues and the stocking density of the fish as well as various other physical

consequences of transport. As is the situation with slaughter, although fish are covered by Council Regulation (EC) No 1/2005 which governs transport of farmed animals, the details are not prescribed as they are for terrestrial livestock so, as for slaughter method, current practice was benchmarked against OIE standards and again the picture is mixed, although compliance is much higher than for slaughter in most of the countries studied.

The Report also provides a series of socio-economic analyses which examine the likely financial cost of adhering to better welfare practices for the various species. Some of these analyses, such as for salmon and trout farming, suggest that implementation of higher welfare practices which comply with OIE standards would have minimal impact on the sales price of the product and even in some cases could bring about a net reduction in the production cost of the fish due to labour savings associated with the adoption of methods with increased automation. In other cases, such as the production of common carp, production costs are higher than sales prices achieved, with the industry supported by subsidies.

**Welfare of Farmed Fish: Common Practices During Transport and at Slaughter: Final Report - Study** (November 2017). A4, 186 pages. Directorate-General for Health and Food Safety (European Commission). Available online at <https://publications.europa.eu/en/publication-detail/-/publication/facddd32-cda6-11e7-a5d5-01aa75ed71a1/language-en>.

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### The welfare of meat chickens reared in the EU has improved according to EC Report

The welfare of meat chickens (broilers) in the European Union (EU) is covered by Directive 2007/43/EC. The Directive protects the welfare of broilers by detailing certain minimum standards and criteria that must be adhered to (such as housing requirements, maximum stocking densities, inspection of birds, training of stockpersons and monitoring and recording of mortality rate). Prior to this Directive the welfare of broilers was covered by Directive 1998/58/EC (which gives basic protection to all animals kept for farming purposes), but Directive 2007/43/EC sought to improve on bird welfare through the use of more species-specific requirements and animal-based indicators.

According to Article 6(3) of the Directive, the European Commission (EC) must report to the European Parliament and to the Council on the application and influence of the Directive on the welfare of chickens kept for meat production and the development of welfare indicators. The EC has now published the Report required by Article 6(3) which is largely based on the findings of a study: 'Study on the application of the broiler Directive DIR 2007/43/EC and development of welfare indicators'.

The study highlights that there is variation across member states as to how the Directive has been implemented. For example, some countries chose not to allow the maximum stocking density of 42 kg m<sup>-2</sup>, set-out in the Directive. However, many member states did choose to allow the maximum stocking density and, across the EU as a whole, 26% of broilers were kept at densities up to 42 kg m<sup>-2</sup> (which equates to 1.69 billion birds of the 6.5 billion reared annually). Of the remaining broiler birds, the majority were kept at stocking densities between 34 and 39 kg m<sup>-2</sup>, and 34% up to 33 kg m<sup>-2</sup>. Although there is scientific evidence which shows that welfare may be compromised at higher stocking densities, the Report states that “the possible negative effects of high stocking densities have been mitigated by applying higher requirements and monitoring using cumulative daily mortality rates as an indicator”.

Guidance for inspection was another area which varied between member states and housing ventilation, in particular, was highlighted as an area requiring improvement. According to the study, insufficient guidance was given to inspectors to enable them to assess whether ventilation was sufficient and only a minority of Member States had defined maximum gas concentrations.

Another worrying issue mentioned was that when farms are operating at the highest stocking densities “keepers who might otherwise cull birds for animal welfare reasons may instead transport possibly unfit birds for slaughter so that they are not included as part of their farm mortality rates” – this is in order to stay below the maximum cumulative daily mortality rate (a rate set out in the Directive for farms operating at the highest stocking densities) and which, if exceeded, may result in the farm being required to operate at lower stocking densities for the next seven consecutive flocks (which is seen as a penalty).

On the other hand, a positive finding emphasised in the Report was the successful use in some Member States of foot-pad dermatitis as an animal welfare indicator. Foot-pad dermatitis can be monitored at the slaughterhouse and data used to make a risk assessment of broiler farms, highlighting farms that may need to take corrective action to improve the welfare of birds on-farm in subsequent flocks.

Overall, the EC Report concludes that the Directive “has provided a framework by which Member States have improved management and housing for broilers which have had a positive effect on the health and welfare of birds”.

**Report from the Commission to the European Parliament and the Council on the Application of Directive 2007/43/EC and its Influence on the Welfare of Chickens kept for Meat Production, as well as the Development of Welfare Indicators (2018).** A4, 10 pages. A report commissioned by the European Commission, Directorate-General for Health and Food Safety. For further information, or to download the report, please visit the EUROPA website, available at: [https://ec.europa.eu/food/animals/welfare/practice/farm/broilers\\_en](https://ec.europa.eu/food/animals/welfare/practice/farm/broilers_en).

**Study on the Application of the Broiler Directive DIR 2007/43/EC and Development of Welfare Indicators (2017).** A4, 261 pages. Final report submitted by the Commission to the European Parliament and Council, carried out by the Food Chain Evaluation Consortium, and led by Agra CEAS Consulting. For further information, or to download the report, please visit the EUROPA website, available at: [https://ec.europa.eu/food/animals/welfare/practice/farm/broilers\\_en](https://ec.europa.eu/food/animals/welfare/practice/farm/broilers_en).

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